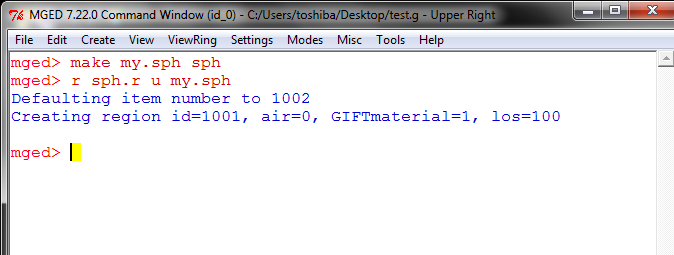
**Shaders**

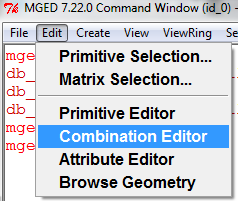
A shader is a way to assign visual material properties to geometry. They are applied to regions.

To apply a shader to a specific region:

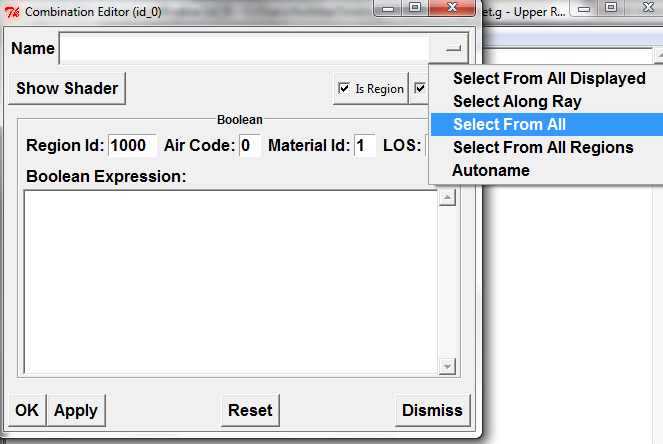
1. Create the model (in our case a sphere: my.sph) and save it as a combination/region(sph.r).



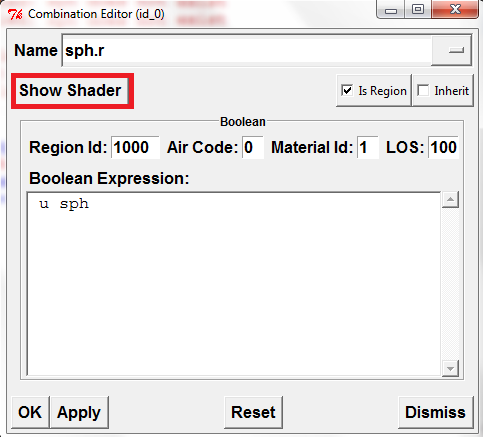
2. Go to the “Edit” button on your Graphics Window/Command Window then click “Combination Editor” button.



3. A new window will open. Hit the button on the right of the Name zone, click “Select from all” and chose the region you want to edit.

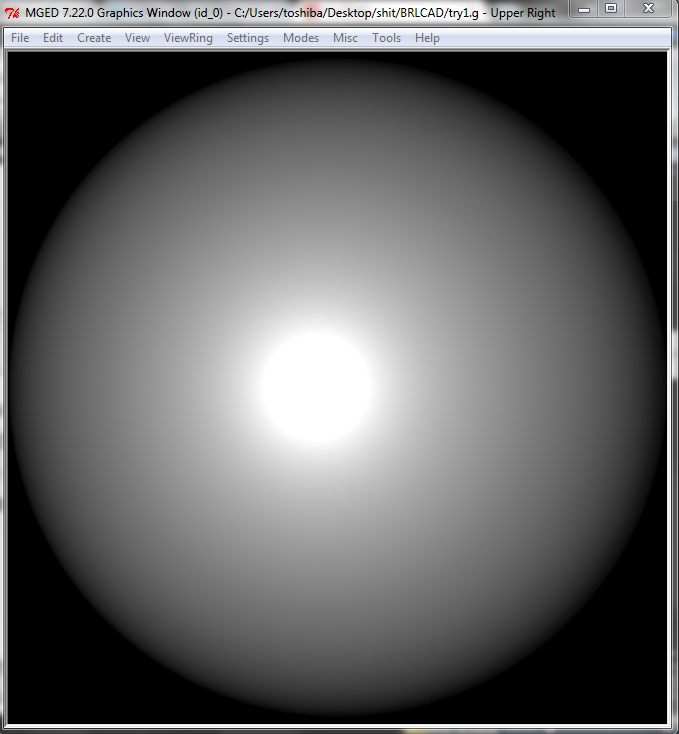


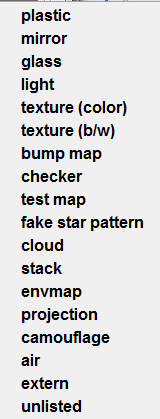
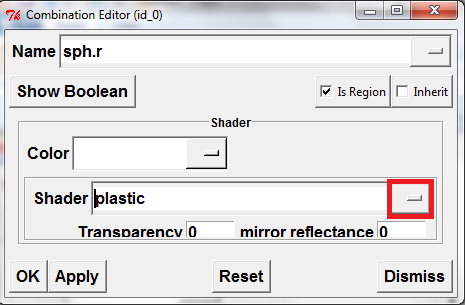
4. Hit the “Show Shader” button.



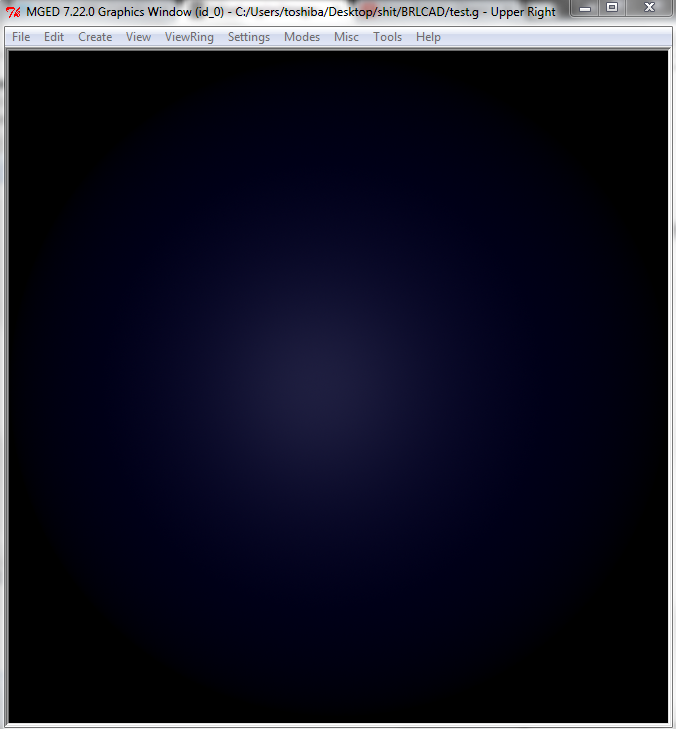
5. The window will change and you will be able to see the appearance properties of your region. Default shader for unspecified geometry is “plastic”. You can edit it by choosing from the list that opens if you click the button on the right of the shader zone.

Default:

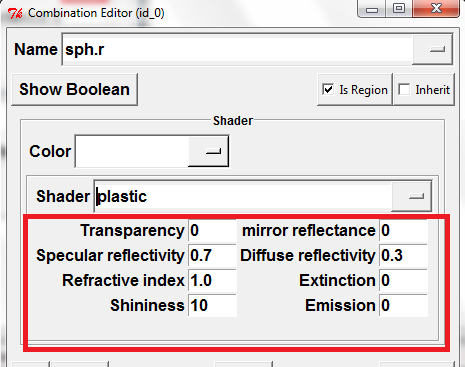




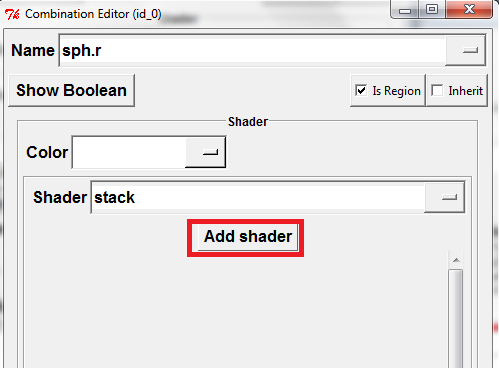
Blue glass:



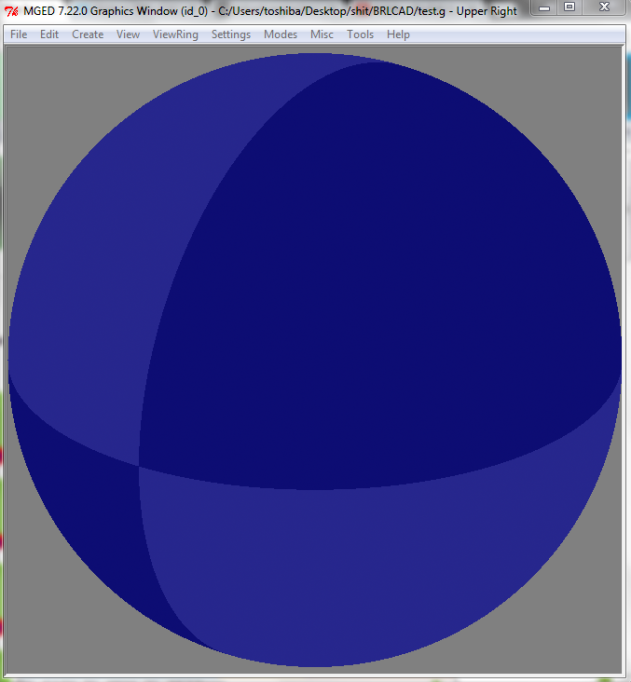
6. Change the Transparency, mirror reflectance, Specular reflectivity, Difuse reflectivity, Refractive index, Extinction, Shininess and Emission values, raytracing at the same time, so you can find the shader you want.



7. If you want to apply more then one material property you can choose stack from the list. Use the “Add shader” button to add as many shaders you want.

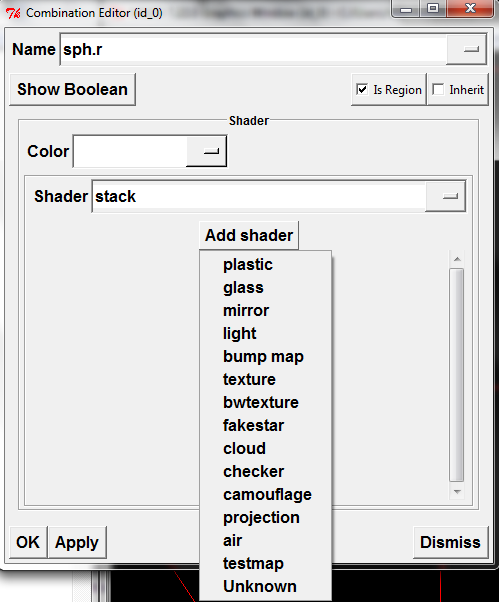


Stack (blue glass + checker)



Steps:

1. Open the combination menu and pick the region (sph.r).
2. Click the show shader button.
3. Chose the stack shader.
4. Click “add shader” and select the wanted shader.



5) Repeat step 4) until you get all the shaders you want.:)

For more details in shading options go to: <http://brlcad.org/w/images/2/2c/Optical_Shaders.pdf>

For any other questions:

<http://brlcad.org/w/images/c/cf/Introduction_to_MGED.pdf>

<http://brlcad.org/wiki/Documentation>